California Valley Groundwater Basin

- Groundwater Basin Number: 6-79
- County: Inyo, San Bernardino
- Surface Area: 58,300 acres (91.1 square miles)

Basin Boundaries and Hydrology

California Valley Groundwater Basin underlies a north-trending valley in southeast Inyo County and northeast San Bernardino County. Elevation of the valley floor ranges from about 2,200 to 3,000 feet above mean sea level. The basin is bounded by nonwater-bearing consolidated rocks of the Nopah Range on the west and northwest, the Kingston Range and Alexander Hills on the south and southwest, and a series of isolated buttes on the east and northeast. Kingston Peak, the highest point in the drainage area, attains an elevation of 7,328 feet (DWR 1964).

Average annual precipitation ranges from 4 to 12 inches. Runoff from the surrounding mountains drains to the southwest end of the basin and into Willow Creek, which discharges to the Amargosa River (Jennings and others 1962; USGS 1983, 1984).

Hydrogeologic Information

Water Bearing Formations

Quaternary alluvium forms the principal water-bearing unit within the basin. This includes unconsolidated younger alluvial deposits and underlying unconsolidated to poorly consolidated older alluvial deposits (DWR 1964).

Recharge and Discharge Areas

Recharge to the basin is derived chiefly from the percolation of runoff through the alluvial fan deposits at the base of the Nopah and Kingston Ranges. Groundwater stored in the younger and underlying older alluvium moves, as does the surface flow, towards the southwest part of the basin and discharges as underflow to Willow Creek (DWR 1964).

Groundwater Level Trends

In 1953, the water level was measured at one well to be 8 feet and at another well to be 42 feet below ground surface (DWR 1964).

Groundwater Storage

Groundwater Storage Capacity. Unknown.

Groundwater in Storage. Unknown.

Groundwater Budget (C)

Groundwater budget information is not available.

Groundwater Quality

Characterization. Groundwater from wells within the basin has a sodium-magnesium bicarbonate-sulfate character. Water from springs in the adjoining Kingston Range has a calcium or magnesium bicarbonate character (DWR 1964).

Impairments. Groundwater in the basin is impaired for domestic use by elevated levels of fluoride, but suitable for irrigation purposes. TDS content is about 500 mg/L. Water from the nearby springs in the Kingston Range is suitable for all beneficial uses (DWR 1964).

Well Production characteristics

	Well yields (gal/min)
Municipal/Irrigation	
	Total depths (ft)
Domestic	
Municipal/Irrigation	

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
	Groundwater levels	
	Miscellaneous water quality	
Department of Health Services and cooperators	Title 22 water quality	

Basin Management

Groundwater management:	
Water agencies	
Public	
Private	

References Cited

California Department of Water Resources (DWR). 1964. *Ground Water Occurrence and Quality Lahontan Region.* Bulletin No.106-1. 439 p.

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Jennings C. W., John L. Burnett, and Bennie W. Troxel. 1962. *Geologic Map of California: Trona Sheet*. Olaf P. Jenkins Edition. California Department of Conservation, Division of Mines and Geology. Scale 1: 250,000.

U.S. Geological Survey (USGS). 1983. *Tecopa, California*. 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.

_____. 1984. *Horse Thief Springs, California.* 7.5' Quadrangle. Provisional Edition. Scale 1: 24,000.

Errata

Changes made to the basin description will be noted here.